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ARTIFICIAL TOOTH AND METHOD OF
INSTALLATION OF THE SAME

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3 Claims. (Cl. 32—15)

This invention relates to artificial teeth and method of their implantation in a tooth socket of the alveolar process of the jawbone to replace diseased, decayed, broken, deformed, or otherwise defective teeth.

In the art prior to my invention it has been general practice to replace the defective crown or upper portion of a natural tooth and employ the lower root portions thereof as a foundation for an artificial structure. In preparing the lower natural root formation for such use the pulp must necessarily be removed, together with the arteries, veins, and nerves, to insure thorough sanitation within the tooth. However, due to the proximity of the infectious virus of a decayed tooth, before its removal, the root portions, surrounding peridental membrane and bone structure are invariably contaminated, which cannot be remedied without extraction of the root portions themselves. It is thus ordinarily impossible to utilize any part of a partially decayed tooth for an unlimited time, without seriously affecting the health of the patient.

It is a general object of my invention to provide a means and method whereby defects in natural teeth, either because of decay, infection, or similar noxious conditions, or a physical injury or deformity, may be corrected by replacement of the natural tooth with an artificial structure rooted in the same manner as the original tooth.

A specific object of my invention is to provide an artificial tooth of any size and shape having root portions adapted to seat in the tooth socket of the jawbone so as to replace all or any part of the original tooth, and which will be united, when so placed, with the peridental membrane and alveolar process by natural secretions of cementum in the same manner as the original tooth.

Another object is the provision of an artificial tooth or portion thereof having a shape determinable by the shape of a specific tooth socket in which the tooth is to be implanted, and adapted to have metal reinforcing fiber, bars, or tubes incorporated therein to lend either flexibility or strength and rigidity as required, and which structural bonds may, in accordance with specific requirements, be extended through the sides thereof and associate with adjacent natural or artificial teeth, a removable crown, or as a support for bridge structure.

Another object is the provision of an artificial tooth embodying in combination with any of the above features, roots and neck portions having

a porous exterior, the cells of which are adapted to be filled with a gelatinous compound and animal fiber or similar substances so as to cooperate with the cementum secretions adjacent the peridental membrane to retain the artificial tooth within the socket.

Another object is to provide an artificial tooth comprising a rooted portion embodying any of the characteristics above designated having a substantially flat upper surface to furnish a foundation for a bridge formation, a set of adjoining teeth not necessarily themselves rooted, or a removable crown.

Another object is to provide a method by which natural teeth having one or more root portions may be replaced by artificial teeth in individual natural sockets of the alveolar process or ridge of the jawbone and encourage the natural growth of tissues around the same to thus retain the roots and neck of the tooth in the same manner as the original.

Another object is the provision of a method of preparing and treating a decayed or diseased tooth socket for the installation of an artificial tooth.

In the drawing—

Fig. 1 is a diagrammatic sectional view of the jawbone and alveolar process or ridge forming the tooth socket, with a rubber or other flexible temporary filling disposed therein;

Fig. 2 is a section similar to Fig. 1 showing a diseased portion of the tooth socket and a medicated temporary flexible filling comprising two integral portions, varying in their porosity disposed therein;

Fig. 3 illustrates in section a channelled flexible filling for treatment of diseased portions of the tooth socket;

Figs. 4 and 5 are elevations of solid porcelain teeth adapted to replace, respectively, the temporary fillings illustrated in Figs. 1 and 3;

Figs. 6, 7 and 8 are elevations of porcelain teeth having auxiliary means to resist removal from the tooth socket;

Figs. 9, 10, 11 and 12 illustrate artificial teeth, in elevation, embodying various reinforcing structures;

Fig. 13 shows a tooth in elevation, with channels for treating diseased portions;

Fig. 14 is an elevation of a composite tooth comprising a root portion and a crown connected by means of a dowel pin;

Fig. 15 is a composite tooth, in elevation, reinforced by a perforated tube, shown in dotted lines;